

PROTECTING YOUR HOME FROM WILDFIRE

In recent years, forest fires in the western U.S. have received much attention in the media. These fires are awesome spectacles of nature's raw power. But wildfires can occur throughout the U.S. and Maryland, and are not confined to the west or to what we see in the news. In fact, over 350 wildfires are ignited in Frederick County in an average year. Wildfires in Maryland rarely burn in the tree canopy, but rather, burn the dead leaves, debris, and smaller plants along the ground. While these fires are not as impressive as what we see in the news, they can be just as dangerous.

Contrary to popular belief, most wildfires in Maryland burn in late fall and early spring, typically from October to December, and from March to May. While summertime is hot and sometimes dry, the relative humidity of the air is high and the forests are covered in lush green leaves. This helps keep the forest floor cool and the humidity of the wildland fuels high. In fall and spring the relative humidity of the air tends to be lower, and with it, the moisture content of the dead leaves and sticks. There are no leaves on the trees, allowing sunlight and wind to reach the forest floor, making the fuels even more dry and flammable. Spring and fall are also peak times for landowners to burn leaves and other debris on their property.

As a result, 35% of wildfires in Frederick County are caused by improper debris burning. Combine this with other human-related causes (such as unattended campfires, arson, machinery, etc.) and it accounts for 99% of all wildfire ignitions. Most people are concerned about fire during the sweltering heat and drought of summer, but drop their guard during the cooler, moister conditions of autumn and spring. This leads to carelessness, and soon, fires are out of control.

Forest fires are known to play a natural role in forest ecosystems, however, they can also pose a serious threat to life and property when they encroach on human habitations. In recent years, there have been an increasing number of homes built in or near the forest, especially in Frederick County. This creates a zone known as the "Wildland/Urban Interface". Humans are at greatest risk of the dangers of wildfire in this zone. A wildfire can ignite houses and other structures, causing severe damage or destruction, and even loss of life. But homeowners in the Wildland/Urban Interface are not helpless against the threat of wildfire. There are precautions that homeowners can take to help prevent wildfire ignitions and protect their property in the event of a wildfire. The first step is to do your part to prevent forest fires.

Always be careful with fire. Extinguish all campfires completely, and if you must burn debris, follow these few regulations to ensure safety. When burning debris, always have a firebreak at least 10 feet wide in all directions, clear of all flammable material. Burn between the hours of 4 p.m. and 12 midnight, only on days that are not dry or windy. Always obtain any required permits and have an adult monitoring the fire at all times until it is completely out and cold. Have water and adequate tools available in case the fire were to escape.

There are things that can be done around the house to further prevent wildfires. Always keep a clean chimney and install a spark arrestor over the flue opening. A spark arrestor should be constructed of corrosion resistant metal mesh with openings $\frac{3}{8} - \frac{1}{2}$ inch in diameter. Remove all vegetation extending within 15 feet in all directions of any flue or vent opening. Dispose of ashes properly by soaking them in water in a metal container for at least 24 hours. Following these precautions can help prevent a wildfire from occurring. There are also things that homeowners can do around their property to help minimize the chance of having property damaged or destroyed in the event of a fire.

Approaching wildfires are often preceded by windborne embers called “firebrands”. These red-hot embers are blown against structures and trapped in crevices and other areas. Firebrands are commonly trapped under decks and porches, between roof shingles and siding boards, in woodpiles and other flammable debris, and in vents or other inlets. Once trapped, the embers can smolder and eventually set the structure on fire. Areas around structures, under decks and patios, and on rooftops should be cleared of flammable debris. Flammable materials such as gasoline should be stored in approved containers and away from occupied buildings. Fire resistant building materials should be used, such as asphalt roofing shingles, tile, slate, sheet metal, aluminum, brick, or stone.

If firefighters or any emergency personnel must come to your home, it is important to have all roads and intersections leading to your home clearly labeled. Have your house number and name clearly posted and visible from the road. Take the time to plan escape routes in case of a fire. It may also help to have a garden hose connected to the outside spigot of the house and available for use at all times.

One of the most effective ways for a homeowner to protect their property from wildfire is by creating “defensible space” around their home. Defensible space is an area of limited fuels around a structure that reduces the likelihood of fire spreading directly to the structure, and provides an area for firefighters to make a stand against an approaching fire.

Defensible space is a fuel break created by removing excess fuels within a 35 – 75 foot wide area around the home (wider in areas with steep slopes). This does not mean removing all trees and landscaping, but rather, removing fuels that can transmit fire to the house or to each other. Single shade trees and ornamental shrubs should be kept at least 15 feet apart and should not be allowed to touch any structures. Branches should be removed from larger trees to a height of 15 feet. Woodpiles should be moved at least 50 feet from any occupied buildings. Ornamental plants should be chosen carefully and resinous or highly flammable varieties should be avoided. It is also important to keep this area free of accumulations of leaves or other debris, and to maintain a mowed lawn.

For landowners who have a Frederick County Forest Resource Ordinance forest easement on their land, it is possible to create adequate defensible space while adhering to the minimum forest requirements. This is done by limiting the defensible space to a 35 foot wide area around the house. In this area understory growth (shrubs, bushes, vines, saplings, seedlings, brush, etc.) may be removed or thinned, provided that 100 stems per acre remain and at least 50% of those have a caliper of 2 inches or more. Maintaining a good defensible space can mean the difference between a minimal or a major loss to wildfire.

With a minimum of planning and an afternoon of work, you can help protect your home against the threat of wildfire. Exercising these few quick and easy precautions can potentially save you and your family from an incredible monetary and emotional loss. You may find that the peace of mind, alone, is well worth the effort.

If you are interested in finding out more about wildfire in Maryland and how to protect yourself and your home, contact David Robbins of the Maryland Department of Natural Resources Forest Service at 301-791-4010.

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